

What is claimed is:

1. A composition comprising:

- (a) a polycarbonate/siloxane component, said polycarbonate/siloxane component being a polycarbonate siloxane copolymer, or a mixture of a polycarbonate siloxane copolymer and polycarbonate resin;
- (b) a mineral filler; and
- (c) a flame retardant selected from among phosphate based flame retardants and sulfonate salt flame retardants;

wherein the composition comprises at least 50% by weight of polycarbonate taking into account the polycarbonate portion of the polycarbonate siloxane copolymer and any polycarbonate resin; and wherein the amounts of polycarbonate siloxane copolymer, mineral filler and flame retardant are effective to provide a composition with a UL94 V0 rating at a thickness of 1.2 mm, a notched Izod impact strength or of 25 k-cm/cm or greater and a flexural modulus of 29,000 kg/cm² or greater.

2. The composition according to claim 1, wherein the siloxane in the polycarbonate/siloxane components is present in an amount of from 0.5 to 6% by weight of the total composition; and the mineral filler is present in an amount of from 1 to 20% by weight of the total composition.

3. The composition of claim 2, wherein the siloxane in the polycarbonate siloxane copolymer is polydimethylsiloxane.

4. The composition of claim 2 wherein the siloxane in the polycarbonate/siloxane components is present in an amount of from 1 to 4% by weight of the total composition.

5. The composition of claim 1, wherein the composition further comprises an additional thermoplastic that is not a polycarbonate.

6. The composition of claim 5, wherein the additional thermoplastic is selected from among polymers including as structural components aromatic vinyl monomers, polymers including as structural components aromatic vinyl monomers and a vinyl cyanide monomers, polymers including as structural component an aromatic vinyl monomers, a vinyl cyanide monomers and a rubber like polymer; aromatic polyesters, polyphenylene ethers, polyether imides, and polyphenylene sulfides.

7. The composition of claim 6, wherein the additional thermoplastic is an ABS rubber.

8. The composition of claim 7, wherein the siloxane in the polycarbonate siloxane copolymer is polydimethylsiloxane.

9. The composition of claim 7, wherein the siloxane in the polycarbonate/siloxane components is present in an amount of from 0.5 to 6% by weight of the total composition.

10. The composition of claim 1, wherein the composition comprises a polycarbonate resin and therein the polycarbonate resin comprises linear and branched polycarbonates.

11. The composition according to claim 10, wherein the siloxane in the polycarbonate/siloxane components is present in an amount of from 0.5 to 6% by weight of the

total composition; and the mineral filler is present in an amount of from 1 to 20% by weight of the total composition.

12. The composition of claim 11, wherein the siloxane in the polycarbonate siloxane copolymer is polydimethylsiloxane.

13. The composition of claim 11, wherein the siloxane in the polycarbonate/siloxane components is present in an amount of from 1 to 4% by weight of the total composition.

14. The composition of claim 10, wherein the composition further comprises an additional thermoplastic that is not a polycarbonate.

15. The composition of claim 14, wherein the additional thermoplastic is selected from among polymers including as structural components aromatic vinyl monomers, polymers including as structural components aromatic vinyl monomers and a vinyl cyanide monomers, polymers including as structural component an aromatic vinyl monomers, a vinyl cyanide monomers and a rubber like polymer; aromatic polyesters, polyphenylene ethers, polyether imides, and polyphenylene sulfides.

16. The composition of claim 15, wherein the additional thermoplastic is an ABS rubber.

17. The composition of claim 16, wherein the siloxane in the polycarbonate siloxane copolymer is polydimethylsiloxane.

18. The composition of claim 17, wherein the siloxane in the polycarbonate/siloxane components is present in an amount of from 1 to 4% by weight of the total composition.

19. The composition of claim 1, wherein the flame retardant is present in an amount of from 0.1 to 10 % by weight of the total composition.

20. The composition according to claim 19, wherein the siloxane in the polycarbonate/siloxane components is present in an amount of from 0.5 to 6% by weight of the total composition; and the mineral filler is present in an amount of from 1 to 20% by weight of the total composition.

21. The composition of claim 20, wherein the siloxane in the polycarbonate siloxane copolymer is polydimethylsiloxane.

22. The composition of claim 20, wherein the siloxane in the polycarbonate/siloxane components is present in an amount of from 1 to 4% by weight of the total composition.

23. The composition of claim 19, wherein the composition further comprises an additional thermoplastic that is not a polycarbonate.

24. The composition of claim 23, wherein the additional thermoplastic is selected from among polymers including as structural components aromatic vinyl monomers, polymers including as structural components aromatic vinyl monomers and a vinyl cyanide monomers, polymers including as structural component an aromatic vinyl monomers, a vinyl

cyanide monomers and a rubber like polymer; aromatic polyesters, polyphenylene ethers, polyether imides, and polyphenylene sulfides.

25. The composition of claim 24, wherein the additional thermoplastic is an ABS rubber.

26. The composition of claim 25, wherein the siloxane in the polycarbonate siloxane copolymer is polydimethylsiloxane.

27. The composition of claim 25, wherein the siloxane in the polycarbonate/siloxane components is present in an amount of from 0.5 to 6% by weight of the total composition.

28. The composition of claim 19, wherein the composition comprises a polycarbonate resin and therein the polycarbonate resin comprises linear and branched polycarbonates.

29. The composition of claim 19, wherein the amounts of polycarbonate siloxane copolymer, mineral filler and flame retardant are effective to provide a composition with a UL94 V0 rating at a thickness of 0.8 mm, a notched Izod impact strength or of 25 k-cm/cm or greater and a flexural modulus of 29,000 kg/cm² or greater.

30. The composition of claim 19, wherein the mineral filler comprises a filler selected from the group consisting of clay, talc and wollastonite.

31. The composition according to claim 30, wherein the siloxane in the polycarbonate/siloxane components is present in an amount of from 0.5 to 6% by weight of the

total composition; and the mineral filler is present in an amount of from 1 to 20% by weight of the total composition.

32. The composition of claim 31, wherein the siloxane in the polycarbonate siloxane copolymer is polydimethylsiloxane.

33. The composition of claim 30, wherein the amounts of polycarbonate siloxane copolymer, mineral filler and flame retardant are effective to provide a composition with a UL94 V0 rating at a thickness of 0.8 mm, a notched Izod impact strength or of 25 k-cm/cm or greater and a flexural modulus of 29,000 kg/cm² or greater.

34. The composition of claim 1, wherein the mineral filler comprises a filler selected from the group consisting of clay, talc and wollastonite.

35. The composition according to claim 34, wherein the siloxane in the polycarbonate/siloxane components is present in an amount of from 0.5 to 6% by weight of the total composition; and the mineral filler is present in an amount of from 1 to 20% by weight of the total composition.

36. The composition of claim 35, wherein the siloxane in the polycarbonate siloxane copolymer is polydimethylsiloxane.

37. The composition of claim 34, wherein the amounts of polycarbonate siloxane copolymer, mineral filler and flame retardant are effective to provide a composition with a UL94 V0 rating at a thickness of 0.8 mm, a notched Izod impact strength or of 25 k-cm/cm or greater and a flexural modulus of 29,000 kg/cm² or greater.

38. The composition of claim 1, wherein the amounts of polycarbonate siloxane copolymer, mineral filler and flame retardant are effective to provide a composition with a UL94 V0 rating at a thickness of 0.8 mm, a notched Izod impact strength of 25 k-cm/cm or greater and a flexural modulus of 29,000 kg/cm² or greater.

39. The composition of claim 1, wherein the composition comprises at least 60% by weight of polycarbonate, taking into account the polycarbonate portion of the polycarbonate siloxane copolymer and any polycarbonate resin.

40. The composition of claim 1, wherein the composition comprises at least 65% by weight of polycarbonate, taking into account the polycarbonate portion of the polycarbonate siloxane copolymer and any polycarbonate resin.

41. The composition of claim 1, wherein the polycarbonate/siloxane component contains both a polycarbonate siloxane copolymer and a polycarbonate resin.

42. A method for forming an article comprising the steps of:
preparing a composition comprising:

- (a) a polycarbonate/siloxane component, said polycarbonate/siloxane component being a polycarbonate siloxane copolymer, or a mixture of a polycarbonate siloxane copolymer and polycarbonate resin;
- (b) a mineral filler; and
- (c) a flame retardant selected from among phosphate based flame retardants and sulfonate salt flame retardants;

wherein the composition comprises at least 50% by weight of polycarbonate taking into account the polycarbonate portion of the polycarbonate siloxane copolymer and any polycarbonate resin; and wherein the amounts of polycarbonate siloxane copolymer, mineral filler and flame retardant

are effective to provide a composition with a UL94 V0 rating at a thickness of 1.2 mm, a notched Izod impact strength or of 25 k-cm/cm or greater and a flexural modulus of 29,000 kg/cm² or greater; and

forming the composition into a thin-walled article by injection molding or extrusion.

43. The method according to claim 42, wherein the siloxane in the polycarbonate/siloxane components is present in an amount of from 0.5 to 6% by weight of the total composition; and the mineral filler is present in an amount of from 1 to 20% by weight of the total composition.

44. The method of claim 43, wherein the siloxane in the polycarbonate siloxane copolymer is polydimethylsiloxane.

45. The method of claim 43, wherein the siloxane in the polycarbonate/siloxane components is present in an amount of from 1 to 4% by weight of the total composition.

46. The method of claim 42, wherein the composition further comprises an additional thermoplastic that is not a polycarbonate.

47. The method of claim 46, wherein the additional thermoplastic is selected from among polymers including as structural components aromatic vinyl monomers, polymers including as structural components aromatic vinyl monomers and a vinyl cyanide monomers, polymers including as structural component an aromatic vinyl monomers, a vinyl cyanide monomers and a rubber like polymer; aromatic polyesters, polyphenylene ethers, polyether imides, and polyphenylene sulfides.

48. The method of claim 47, wherein the additional thermoplastic is an ABS rubber.
49. The method of claim 48, wherein the siloxane in the polycarbonate siloxane copolymer is polydimethylsiloxane.
50. The method of claim 42, wherein the composition comprises a polycarbonate resin and therein the polycarbonate resin comprises linear and branched polycarbonates.
51. The method according to claim 50, wherein the siloxane in the polycarbonate/siloxane components is present in an amount of from 0.5 to 6% by weight of the total composition; and the mineral filler is present in an amount of from 1 to 20% by weight of the total composition.
52. The method of claim 51, wherein the siloxane in the polycarbonate siloxane copolymer is polydimethylsiloxane.
53. The method of claim 42, wherein the flame retardant is present in an amount of from 0.1 to 10 % by weight of the total composition.
54. The method of claim 53, wherein the siloxane in the polycarbonate/siloxane components is present in an amount of from 0.5 to 6% by weight of the total composition; and the mineral filler is present in an amount of from 1 to 20% by weight of the total composition.
55. The method of claim 54, wherein the siloxane in the polycarbonate siloxane copolymer is polydimethylsiloxane.

56. The method of claim 54, wherein the siloxane in the polycarbonate/siloxane components is present in an amount of from 1 to 4% by weight of the total composition.

57. The method of claim 42, wherein the composition further comprises an additional thermoplastic that is not a polycarbonate.

58. The method of claim 57, wherein the additional thermoplastic is selected from among polymers including as structural components aromatic vinyl monomers, polymers including as structural components aromatic vinyl monomers and a vinyl cyanide monomers, polymers including as structural component an aromatic vinyl monomers, a vinyl cyanide monomers and a rubber like polymer; aromatic polyesters, polyphenylene ethers, polyether imides, and polyphenylene sulfides.

59. The method of claim 58, wherein the additional thermoplastic is an ABS rubber.

60. The method of claim 59, wherein the siloxane in the polycarbonate siloxane copolymer is polydimethylsiloxane.

61. The method of claim 59, wherein the siloxane in the polycarbonate/siloxane components is present in an amount of from 0.5 to 6% by weight of the total composition.

62. The method of claim 42, wherein the composition comprises a polycarbonate resin and therein the polycarbonate resin comprises linear and branched polycarbonates.

63. The method of claim 42, wherein the amounts of polycarbonate siloxane copolymer, mineral filler and flame retardant are effective to provide a composition with a UL94 V0 rating at a thickness of 0.8 mm, a notched Izod impact strength or of 25 k-cm/cm or greater and a flexural modulus of 29,000 kg/cm² or greater.

64. The method of claim 42, wherein the mineral filler comprises a filler selected from the group consisting of clay, talc and wollastonite.

65. The method of claim 64, wherein the siloxane in the polycarbonate/siloxane components is present in an amount of from 0.5 to 6% by weight of the total composition; and the mineral filler is present in an amount of from 1 to 20% by weight of the total composition.

66. The method of claim 64, wherein the siloxane in the polycarbonate siloxane copolymer is polydimethylsiloxane.

67. The method of claim 66, wherein the amounts of polycarbonate siloxane copolymer, mineral filler and flame retardant are effective to provide a composition with a UL94 V0 rating at a thickness of 0.8 mm, a notched Izod impact strength or of 25 k-cm/cm or greater and a flexural modulus of 29,000 kg/cm² or greater.

68. The method of claim 42, wherein the mineral filler comprises a filler selected from the group consisting of clay, talc and wollastonite.

69. The method of claim 68, wherein the siloxane in the polycarbonate/siloxane components is present in an amount of from 0.5 to 6% by weight of the total composition; and the mineral filler is present in an amount of from 1 to 20% by weight of the total composition.

70. The method of claim 69, wherein the siloxane in the polycarbonate siloxane copolymer is polydimethylsiloxane.

71. The method of claim 68, wherein the amounts of polycarbonate siloxane copolymer, mineral filler and flame retardant are effective to provide a composition with a UL94 V0 rating at a thickness of 0.8 mm, a notched Izod impact strength or of 25 k-cm/cm or greater and a flexural modulus of 29,000 kg/cm² or greater.

72. The method of claim 42, wherein the amounts of polycarbonate siloxane copolymer, mineral filler and flame retardant are effective to provide a composition with a UL94 V0 rating at a thickness of 0.8 mm, a notched Izod impact strength or of 25 k-cm/cm or greater and a flexural modulus of 29,000 kg/cm² or greater.

73. A thin walled article formed by the method of claim 42.

74. The article of claim 73, wherein the article is formed by injection molding and has a minimum wall thickness of 1.2 mm.

75. The article of claim 73, wherein the article is formed by extrusion and has a minimum wall thickness of 2 mm.